
ABSTRACT

ca A combined earth-star sensor system (1) for three-axis attitude determination of satellites in space comprises separate apertures with different directions of observation and common image pickup devices (4) for the earth sensor and the star sensor. A common optical arrangement (2) for earth observation and star observation, and a deflection mirror (3) for deviation of the laterally entering light from the earth, to the common optical arrangement (2) may be provided. In one focal plane there is a focal plane sensor with an array of image pickup devices (4) with the integration time being controllable. An evaluation unit determines the orbit and the attitude of the space vehicle from the attitude and movement of the stars and of the rim of the earth in the focal plane.
